

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04B1/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04B H03M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 590 943 B1 (ALI DANISH) 8 July 2003 (2003-07-08) abstract column 2, line 19 - column 3, line 31 column 4, line 1 - column 5, line 18; figures 1,2 ----- US 6 584 157 B1 (DONALDSON WILLIAM ET AL) 24 June 2003 (2003-06-24) abstract column 3, line 5 - line 23 column 3, line 49 - line 55 claim 1; figures 2-6 ----- -/-	1-10
A		1-10

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

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- *E* earlier document but published on or after the international filing date
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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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Date of the actual completion of the international search

7 October 2004

Date of mailing of the international search report

14/10/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 218 972 B1 (GROSHONG RICHARD) 17 April 2001 (2001-04-17) abstract column 3, line 5 – line 23 column 3, line 49 – line 55 claim 1; figures 2-6 column 1, line 66 – column 2, line 50 column 3, line 7 – line 13 column 3, line 54 – column 5, line 22 figures 1-4 -----	1-10
A	US 6 005 506 A (BAZARJANI SEYFOLLAH S ET AL) 21 December 1999 (1999-12-21) column 5, line 20 – column 7, line 30 column 8, line 18 – line 36 figure 2 -----	1-10
A	EP 1 168 639 A (TRW INC) 2 January 2002 (2002-01-02) page 2, line 13 – page 3, line 6 page 8, line 1 – line 14 -----	1-10

Information on patent family members

onal Application No
IB2004/051096

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 6590943	B1	08-07-2003	CN DE WO EP JP	1114997 B 69917431 D1 0022735 A1 1046233 A1 2002527978 T		16-07-2003 24-06-2004 20-04-2000 25-10-2000 27-08-2002
US 6584157	B1	24-06-2003	EP WO JP	1036435 A2 0001074 A2 2002519926 T		20-09-2000 06-01-2000 02-07-2002
US 6218972	B1	17-04-2001		NONE		
US 6005506	A	21-12-1999	AU AU BR CA CN EP JP WO ZA	746148 B2 1717899 A 9813414 A 2313139 A1 1281597 T 1040587 A1 2001526487 T 9930428 A1 9811125 A		18-04-2002 28-06-1999 10-10-2000 17-06-1999 24-01-2001 04-10-2000 18-12-2001 17-06-1999 10-10-2000
EP 1168639	A	02-01-2002	US EP JP	6735421 B1 1168639 A2 2002076972 A		11-05-2004 02-01-2002 15-03-2002